West Virginia Department of Environmental Protection
Division of Air Quality

Title V Operating Permit Revision

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

For Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Action Number:	MM01	**SIC:**	1321
Name of Permittee:	Dominion Transmission, Inc.		
Facility Name/Location:	Hastings Extraction Plant		
County:	Wetzel		
Facility Address:	Route 20, Pine Grove, WV 26419		

Description of Permit Revision:

This minor modification is based on permit R13-2468D and covers replacement of the 1,000,000 gallon natural gas storage tank TK03 (005-01) with a new 1,000,000 gallon natural gasoline storage tank TK10 (005-02); addition of existing Fire Water Heaters T-FW-1, T-FW-2, T-FW-3 and T-FW-4; and changing the description of the heater 004-05 from "Pipeline Heater" to "Hot Oil Heater".

Initial Title V Permit Information:

Permit Number:	R30-10300009-2011
Effective Date:	December 6, 2011
Expiration Date:	November 22, 2016

Directions To Facility: From Clarksburg take Route 20 North approximately 37 miles to Hastings. Plant is on left side of the road.

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

William F. Durham
Director

March 10, 2015
Date Issued

Table of Contents

[1] Hastings Extraction Plant

[2] [1]Requirements incorporated by reference in 40 CFR 60, Subpart KKK.

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
001-01	EN01	Galmish Diesel Fired Firewater Pump, John Deere Model 6~~8~~081HF001	2008	300 HP	NA
001-02	EN02	Galmish Diesel Fired Firewater Pump, John Deere Model 6~~8~~081HF001	2008	300 HP	NA
001- 03	EN03	Galmish Diesel Fired Firewater Pump, John Deere Model 6668HFC48B	2010	211 HP	NA
001- 04	EN04	HEP** Reciprocating Engine/Fire Pump; Waukesha	1971	150 HP	NA
004-01	BL01	HEP** Boiler; Cleaver Brooks 101-CB	1971	25.1 MMBtu/hr	NA
004-02	BL02	HEP** Boiler; Cleaver Brooks 101-CA	2000	16.75 MMBtu/hr	NA
004-05	HTR3	HEP** Hot Oil ~~Pipeline~~ Heater; Callidus Tech. OPF	2003	70 MMBtu/hr	NA
002-02	AUX02	HEP** Backup Emergency Generator; Kohler Auxiliary Generator	2002	50KW (67 HP)	NA
002-03	AUX03	HEP** Emergency Generator; Dayton	2004	40KW (57 HP)	NA
002-04	AUX04	HEP** Emergency Generator, Cummins, Onan	2005	85KW (120 HP)	NA
005-02 ~~01~~	TK10 ~~TK03~~	HEP** Vertical Floating Roof Natural Gasoline Storage Tank	2014 ~~1988~~	1,000,000-gallon	IFR* ~~NA~~
006-01	LOAD	Gasoline, Propane, Isobutane and n-Butane Loading Railcar Racks	1951	550 GPM of each Gasoline, Propane, Isobutane, n-Butane	NA
T-FW-1	FW-1	HEP** Fire Water Heater Brown Fired Heater Model 302-6 – Natural Gas Fired	2002	0.2 MMBtu/hr	None
T-FW-2	FW-2	Galmish Fire Water Heater 1 RBI Model LB1650 – propane fired	2006	1.65 MMBtu/hr	None
T-FW-3	FW-3	HEP** Fire Water Heater (near Tank 10) RBI Model MB3000 – Natural Gas fired	2010	3 MMBtu/hr	None
T-FW-4	FW-4	Galmish Fire Water Heater 2 RBI Model LB1650 – propane fired	2012	1.65 MMBtu/hr	None

*IFR – Internal Floating Roof
** HEP - Hastings Extraction Plant

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
~~R13-1045~~	~~October 25, 1988~~
R13-2468D~~C~~	November 5, 2014 ~~November 18, 2010~~

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

~~3.1.9. Except as provided in 40 C.F.R. §§ 60.632(b) and (c), the permittee is responsible for thoroughly inspecting the facility, or part of the facility, for the presence of equipment leaks of volatile organic compounds and for complying with 40 C.F.R. §§ 60.632, 60.635 and 60.636. The pertinent sections of 40 CFR 60 **Subpart KKK** applicable to this facility include the following:~~

~~*§ 60.632 Standards.*~~

~~(a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of §§60.482-1 (a), (b), and (d) and 60.482-2 through 60.482-10, except as provided in §60.633, as soon as practicable, but no later than 180 days after initial startup.
[45CSR16, 40 C.F.R. § 60.632(a), Subpart KKK; and 45CSR13, R13-2468, 4.1.14]~~

~~(b) An owner or operator may elect to comply with the requirements of §§60.483-1 and 60.483-2.
[45CSR16, 40 C.F.R. § 60.632(b), Subpart KKK; and 45CSR13, R13-2468, 4.1.14]~~

~~(c) An owner or operator may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart. In doing so, the owner or operator shall comply with requirements of §60.634 of this subpart.
[45CSR16, 40 C.F.R. § 60.632(c), Subpart KKK]~~

~~*§ 60.633 Exceptions.*~~

~~(a) Each owner or operator subject to the provisions of this subpart KKK may comply with the following exceptions to the provisions of subpart VV.~~

~~(b) (1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485(b) except as provided in §60.632(c), paragraph(b)(4) of §60.633, and §60.482-4 (a) through (c) of subpart VV.~~

~~(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.~~

~~(3)(i) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9.
(ii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.~~

~~(4)(i) Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4(b)(1) of subpart VV.
(ii) No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring.~~

~~(c) Sampling connection systems are exempt from the requirements of §60.482-5.~~

~~(d) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of §§60.482-2(a)(1) and 60.482-7(a), and paragraph (b)(1) of this section.~~

~~(e) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of §§60.482-2(a)(1), 60.482-7(a), and paragraph (b)(1) of this section.~~

~~(f) Reciprocating compressors in wet gas service are exempt from the compressor control requirements of §60.482-3.~~

~~(g) Flares used to comply with this subpart shall comply with the requirements of §60.18.~~

~~(h) An owner or operator may use the following provisions instead of §60.485(e):~~

~~(1) Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150 °C (302 °F) as determined by ASTM Method D86-78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).~~

~~(2) Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150 °C (302 °F) as determined by ASTM Method D86-78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).~~

~~[45CSR16, 40 C.F.R. § §60.633, Subpart KKK; and45CSR13, R13-2468, 4.1.14]~~

~~3.1.10. Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of 40 C.F.R. § 60.635 in addition to the requirements of §60.486. [45CSR16, 40 C.F.R. §60.635(a), Subpart KKK; and 45CSR13, R13-2468, 4.1.14]~~

3.2. Monitoring Requirements

3.2.1. None.

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61,

f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A and 45CSR13, R13-2468, 4.4.1, 5.4.1 and 6.4.1]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B and 45CSR13, R13-2468, 3.4.1]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E]

3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:
Associate Director
Office of Air Enforcement and Compliance Assistance ~~Permits Review~~ (3AP20~~12~~)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

5.0 Source-Specific Requirements • HEP Hot Oil ~~Pipeline~~ Heater [HTR3]

5.1. Limitations and Standards

5.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1 and 45CSR13, R13-2468, 5.1.4 ~~4.1.10~~]

5.1.2. Emissions from the 70 MMBtu/hr hot oil ~~pipeline~~ heater 004-05 shall not exceed the following:

Pollutant	Emissions	
	lb/hr	tons/yr
CO	2.8	12.26
NO_x	3.5	15.33
PM	0.53*	2.33
VOC	0.7	3.07

* This limit is more stringent than PM standard in 45 CSR §2-4.1.b.

Compliance with the PM emissions limit listed above assures compliance with the allowable weight emissions limit established in 45CSR§2-4.1.

[45CSR13, R13-2468, 5.1.1 ~~4.1.1~~ and 45CSR§2-4.1]

5.1.3. The hot oil heater (004-05) shall either combust natural gas or process gas generated from the extraction plant. The amount of fuel ~~natural gas~~ combusted by ~~in~~ the ~~70 MMBtu/hr~~ heater shall not exceed 70,000 cubic feet per hour, nor 6.13 x 10^8 cubic feet per year. Compliance with this limit satisfies compliance with visible emission standard of Condition 5.1.1, and PM standard of 45 CSR §2-4.1.b.
[45CSR13, R13-2468, 5.1.2 ~~4.1.2~~]

~~5.1.4. No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:~~

~~For type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U's per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units.~~

~~[45CSR§2-4.1, 45CSR§2-4.1.b]~~

5.1.4 ~~5~~. The fuel for the hot oil heater (004-05) shall not have a total sulfur concentration of greater than 20 grains per 100 dry standard cubic feet of gas. Compliance with this limit shall be determined by conducting gas samples and analyzing the sample to determine the hydrogen sulfide content of the sample. At the minimum, such sampling and analysis shall be conducted once per calendar year.

Compliance with this streamlined requirement will assure compliance with requirements of 45CSR§10-3.1 and 45CSR§10-5.1.

~~No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all~~

~~stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:~~

~~For Type 'b' and Type 'c' fuel burning units, the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.~~

[45 CSR §10-3.1, ~~and 45CSR§10-3.1.e~~ 45CSR§10-5.1, and 45 CSR §10A-2.7 and 45CSR13, R13-2468, 5.1.3 ~~4.1.13~~]

5.2. Monitoring Requirements

5.2.1. None.

5.3. Testing Requirements

5.3.1. None.

5.4. Recordkeeping Requirements

5.4.1. For the purpose of determining compliance with maximum fuel limits set forth in Condition 5.1.3, the permittee ~~applicant~~ shall maintain a monthly record of the quantity of fuel (natural gas or fuel gas) burned by the heater and the ~~number of~~ hours of ~~heater~~ operation. Such ~~R~~records shall be maintained in accordance with Condition 3.4.2. ~~on site for a period no less than five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative upon request.~~
[45 CSR §2-8.3.c, 45 CSR §2A-7.1.a.1 and 45CSR13, R13-2468, 5.4.6 ~~4.4.2~~]

5.4.2. The permittee shall maintain records of the date of installation (2003) of the 70 MMbtu/hr heater (HTR3) and the date of permanent removal of the Westinghouse turbine (TRB1). Such records shall be retained by the permittee for at least five (5) years from such dates of installation and removal. Certified records shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR§30-5.1.c]

5.5. Reporting Requirements

5.5.1. None.

5.6. Compliance Plan

5.6.1. None.

6.0 Source-Specific Requirements • HEP Backup Generators [AUX02, AUX03, AUX04], ~~and~~ Fire Pump engine [EN04] and Fire Water Heaters [FW-1 and FW-3]

6.1. Limitations and Standards

6.1.1. The backup generator 002-02 shall not operate more than 500 hours per year. Compliance with this limit shall be determined based on 12 month rolling total.
[45CSR13, R13-2468, 6.1.1 ~~4.1.4~~] [AUX02]

6.1.2. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, the facility is subject to the following limitations and standards given below:

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013. **[40 C.F.R. 63 Subpart ZZZZ §63.6595(a)(1)]**

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart. **[40 C.F.R. 63 Subpart ZZZZ §63.6603(a)]**

Table 2d to Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For each . . .	You must meet the following requirement, except during periods of startup . . .
5. Emergency stationary SI RICE **[AUX02, AUX03, AUX04]**[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
9. Non-emergency, non-black start 4SRB stationary RICE ≤ 500 HP **[EN04]**	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations. **[AUX02, AUX03, AUX04]**

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **[AUX02, AUX03, AUX04]**

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power. **[AUX02, AUX03, AUX04]**

[40 C.F.R. 63 Subpart ZZZZ §63.6640]

§63.6665 What parts of the General Provisions apply to me?

Table 8 to subpart ZZZZ shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

[40 C.F.R. 63 Subpart ZZZZ §63.6665 and §63.6645(a)(5)] [AUX02, AUX03, AUX04, EN04]

6.1.3. The fire water heaters identified as T-FW-1 and T-FW-3 shall be limited to being fired with natural gas. Compliance with this fuel restriction shall satisfy compliance with the visible emission limit of 45 CSR §2-3.1.
[45CSR13, R13-2468, 6.1.2]

6.2. Monitoring Requirements

6.2.1. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, the facility is subject to the following monitoring requirements given below:

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[40 C.F.R. 63 Subpart ZZZZ §63.6635] [AUX02, AUX03, AUX04, EN04]

6.2.2. The permittee shall record the hours of operation of the backup generator (002-02) and maintain a 12 month rolling total on a monthly basis. Such records shall be maintained in accordance with Condition 3.4.2. **[45CSR13, R13-2468, 6.2.1] [AUX02]**

6.3. Testing Requirements

6.3.1. None

6.4. Recordkeeping Requirements

~~6.4.1. Monthly records shall be maintained of the hours of operation for this generator. [45CSR§30-5.1.c.] [AUX02]~~

6.4.1.~~2~~. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, the facility is subject to the following recordkeeping requirements given below:

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section. **[AUX02, AUX03, AUX04, EN04]**

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

7.0. Source-Specific Requirements • HEP Natural Gasoline Storage Tank [TK10 ~~03~~]

7.1. Limitations and Standards

7.1.1. ~~The~~ VOC emissions that are the result from working and breathing loses of storing a VOL in Tank TK10 at the facility ~~from the permitted floating roof storage tank~~ shall not exceed 1.4 tons per year. ~~0.22 pounds per hour nor 1,924 pounds per year.~~ For the purpose of ensuring compliance with this emission limit, Tank TK10 shall be operated and maintained in accordance with the following:

a. The vessel shall only store natural gasoline with a Reid Vapor Pressure of no greater than 15.5 psia.

b. The tank shall be equipped and maintained with an internal floating roof with two seals. The two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside the storage vessel. The floating roof shall float on the stored liquid at all times while the vessel is in service, except during initial filling and during those intervals when the storage vessels are completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
[40 CFR §§60.112b (a)(1)(i) and (ii)(B); 45CSR16]

c. Deck Fittings. Opening through the deck of the floating roof shall be equipped as described in the following:

i. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface;

ii. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e. no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use;

iii. Each automatic bleeder vent and rim space vent shall be equipped with a gasket and are to be closed at all times when the roof is floating except when being floated off or landed on the roof leg supports;

iv. Each rim space vent shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting;

v. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening;

vi. Each opening for a sample well or deck drain (that empties into the stored liquid) may be equipped with a slit fabric seal or similar device that covers at least 90 percent of the opening, instead of a deck cover;

vii. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover; and

viii. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

[40 CFR §§60.112b(a)(1)(iii) through (ix); 45CSR16]

[45CSR13, R13-2468, 5.1.7 ~~R13-1045, Specific requirement (1)~~]

~~7.1.2. The 1 MM gallon external floating roof natural gasoline storage tank (ID: TK03) shall meet the following specifications:~~

~~a. Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.~~
~~[45CSR16, 40 C.F.R. § 60.112b(a)(2)(i)]~~

~~i. The primary seal shall be either a mechanical shoe seal or a liquid mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.~~
~~[45CSR16, 40 C.F.R. § 60.112b(a)(2)(i)(A)]~~

~~ii. The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4). [45CSR16, 40 C.F.R. § 60.112b(a)(2)(i)(B)]~~

~~b. Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e.,no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.~~
~~[45CSR16, 40 C.F.R. § 60.112b(a)(2)(ii)]~~

~~c. The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be~~

~~accomplished as rapidly as possible. [45CSR16, 40 C.F.R. § 60.112b(a)(2)(iii)]~~

7.1.2. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11 and 45CSR13, R13-2468, 5.1.8]

7.2. Monitoring Requirements

7.2.1. Prior to initial filling after the internal floating roof has been installed for the replacement vessel of Tank TK10, the permittee shall visually inspect the internal floating roof, the primary seal, and secondary seal for holes, tears, other openings or defects. The permittee shall repair all deficiencies prior to filling the tank. Record of such inspection shall identify the tank on which the inspection was performed, date of inspection, and condition of each component of the internal floating roof (seals, internal floating roof, and fittings). Such records shall be maintained in accordance with Condition 3.4.2.
[40 CFR §§60.113b(a)(1) and 60.115b(a)(2), 45CSR16 and 45CSR13, R13-2468, 5.2.1]

~~To ensure compliance with Section 7.1.1. of this permit and with NSPS Subpart Kb, the permittee shall:~~

~~a. Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency:
[45CSR16, 40 C.F.R. § 60.113b(b)(1)]~~

~~i. Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.
[45CSR16, 40 C.F.R. § 60.113b(b)(1)(i)]~~

~~ii. Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.
[45CSR16, 40 C.F.R. § 60.113b(b)(1)(ii)]~~

~~iii. If any source ceases to store VOL for a period of one (1) year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of § 60.113b.
[45CSR16, 40 C.F.R. § 60.113b(b)(1)(iii)]~~

~~b. Determine the gap widths and areas in the primary and secondary seals individually by the following procedures [45CSR16, 40 C.F.R. § 60.113b(b)(2)]:~~

~~i. Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.~~

~~[45CSR16, 40 C.F.R. § 60.113b(b)(2)(ii)]~~

~~ii. Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(2)(ii)]~~

~~iii. The total surface area of each gap described in paragraph (b)(2)(ii) of § 60.113b shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(2)(iii)]~~

~~c. Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of § 60.113b.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(3)]~~

~~d. Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in paragraphs (b)(4)(i) and (b)(4)(ii) of § 60.113b:~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(4)]~~

~~i. The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(4)(i)]~~

~~(1) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(4)(i)(A)]~~

~~(2) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(4)(i)(B)]~~

~~ii. The secondary seal is to meet the following requirements:~~
~~45CSR16, 40 C.F.R. § 60.113b(b)(4)(ii)]~~

~~(1) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of § 60.113b.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(4)(ii)(A)]~~

~~(2) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(4)(ii)(B)]~~

~~(3) There are to be no holes, tears, or other openings in the seal or seal fabric.~~

~~[45CSR16, 40 C.F.R.. § 60.113b(b)(4)(ii)(C)]~~

~~iii. If a failure that is detected during inspections required in paragraph (b)(1) of § 60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30 day extension may be requested from the Administrator in the inspection report required in § 60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(4)(iii)]~~

~~e. Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of § 60.113b to afford the Administrator the opportunity to have an observer present.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(5)]~~

~~f. Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(6)]~~

~~i. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears , or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(6)(i)]~~

~~ii. For all the inspections required by paragraph (b)(6) of § 60.113b, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of §60.113b above is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.~~
~~[45CSR16, 40 C.F.R. § 60.113b(b)(6)(ii)]~~

7.2.2. The permittee shall conduct inspections of the internal floating roof for Tank TK10 in accordance with one of the following procedures:

a. At least once every 12 months after initial fill and annually thereafter, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof. If the internal floating roof is not resting on the surface of the VOL inside the storage tank, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If

a failure that is detected during inspections is required in this paragraph and cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Director or Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
[40 CFR §§60.113b(a)(2) and (a)(3)(ii)]

And whenever the vessel is emptied and degassed with intervals no greater than 10 years between inspections, the permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the permittee shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL; or
[40 CFR §60.113b(a)(4)]

b. At least once every five years after initial fill of Tank TK10 identified in Condition 7.1.1, the permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the permittee shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL.
[40 CFR §§60.113b(a)(3)(i) and (a)(4)]

[45CSR16 and 45CSR13, R13-2468, 5.2.2]

7.2.3. For the purpose of ensuring compliance with the Reid Vapor Pressure limit of Condition 7.1.1.a, the permittee shall sample and determine the Reid Vapor Pressure of the natural gasoline stored in Tank TK10 at least once per calendar quarter. Such sampling and analysis shall be conducted in accordance with latest version of ASTM 5191 or equivalent method. If the permittee take more than one sample during the quarter, the permittee shall take the average of Reid Vapor Pressure of the samples.
[45CSR13, R13-2468, 5.2.3]

7.3. Testing Requirements

7.3.1. None.

7.4. Recordkeeping Requirements

7.4.1. The permittee shall maintain records of the tank throughput of natural gasoline, monthly at a minimum, but may record it more often at the discretion of the owner or operator. The throughput

will be used, in addition to the TANKS program, to calculate the emissions of VOC hourly and annually. A twelve month running total shall be maintained to verify compliance with the annual emission limit. Each month a new twelve month total shall be calculated using the previous twelve months data. Records and calculations shall be maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45CSR§30-5.1.c.]

7.4.2. The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a) of this section depending upon the control equipment installed to meet the requirements of §60.112b.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

[40 CFR §60.115b(a)(2) and 45CSR16]

~~Keep a record of each gap measurement performed as required by § 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain.~~
~~[40 C.F.R. § 60.115b(b)(3)]~~

~~a. The date of measurement.~~
~~[40 C.F.R. § 60.115b(b)(3)(i)];~~

~~b. The raw data obtained in the measurement.~~
~~[40 C.F.R. § 60.115b(b)(3)(ii)];~~

~~c. The calculations described in § 60.113b(b)(2) and (b)(3).~~
~~[40 C.F.R. § 60.115b(b)(3)(iii)]~~

7.4.3. The owner or operator of each storage vessel as specified in § 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. These records shall be kept for the life of the source.
[40 C.F.R. § 60.116b(b), 45CSR16 and 45CSR13, R13-2468, 5.4.4]

7.4.4. The owner or operator shall maintain a record of the volatile organic liquid stored, the period of storage, and the maximum true vapor pressure of that volatile organic liquid during the respected storage period. The maximum true vapor pressure shall be determined in accordance with § 60.116b(e). These records shall be kept on site for at least 5 years.
[40 C.F.R. § 60.116b(c), 45CSR16 and 45CSR13, R13-2468, 5.4.5]

7.4.5. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. **[45CSR13, R13-2468, 5.4.2]**

7.4.6. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2468, 5.4.3]

7.5. Reporting Requirements

7.5.1. The permittee shall submit an initial report that describes the control equipment (internal floating roof) for Tank TK10 and certifies that the control equipment meets the specifications of conditions 7.1.1. and 7.2.1 to the Director. Such report shall be submitted within 15 days after initial filling of Tank TK10.

~~Furnish the Director with a report that describes the control equipment and certifies that the control equipment meets the specifications of § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by § 60.7(a)(3).~~
[40 CFR §60.115b(a)(1) ~~(b)(1)~~ ,45CSR16 and §60.7(a)(3) and 45CSR13, R13-2468, 5.5.2]

7.5.2. The permittee shall notify the Director in writing at least 30 days prior to the filling or refilling of Tank TK10 for which an inspection is required by Condition 7.2.1 (Initial inspection) or Condition 7.2.2 (5 year or 10 year inspection) to afford the Director the opportunity to have an observer present.

If the 5 or 10 year inspection required by Condition 7.2.2 is not planned and the permittee could not have known 30 days in advance of refilling, the permittee shall notify the Director at least 7 days prior to the refilling of Tank TK10. Such notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Director at least 7 days prior to the refilling.

All records and associated documentation of such notification(s) shall be maintained in accordance with Condition 3.4.2.

[40 CFR §60.113b(a)(5), 45CSR16 and 45CSR13, R13-2468, 5.5.3]

~~Within 60 days of performing the seal gap measurements required by § 60.113b(b)(1), furnish the Director with a report that contains:~~
~~**[40 C.F.R. § 60.115b(b)(2)]**~~

~~a. The date of measurement.~~
~~**[40 C.F.R. § 60.115b(b)(2)(i)];**~~

~~b. The raw data obtained in the measurement.~~
~~**[40 C.F.R. § 60.115b(b)(2)(ii)];**~~

~~c. The calculations described in § 60.113b(b)(2) and (b)(3).~~
~~**[40 C.F.R. § 60.115b(b)(2)(ii)]**~~

7.5.3. During any of the required inspections as outlined in Condition 7.2.2 that the permittee detected conditions meeting as described in Condition 7.2.2 a or detects holes or tears in the seal or seal fabric, or defects in the internal floating roof, the permittee shall submit a copy of the inspection report to the Director within 30 days of such inspection. Such report shall identify the nature of the defect, reason the defect did not meet the specification as outlined in either Condition 7.1.1 or Condition 7.2.2, date Tank TK10 was emptied if required, the nature of and date repair was made. Records of such submittals shall be maintained in accordance with Condition 3.4.2.

~~After each seal gap measurement that detects gaps exceeding the limitations specified by § 60.113b(b)(4), submit a report to the Director within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of § 60.115b and the date the vessel was emptied or the repairs made and date of repair.~~

[40 C.F.R. §§60.115b(a)(3) & (a)(4) ~~(b)(4)~~, 45CSR16 and 45CSR13, R13-2468, 5.5.4]

7.6. Compliance Plan

7.6.1. None.

8.0. Source-Specific Requirements • HEP 40 C.F.R. 60, Subpart KKK and Subpart VV (as applicable) (LDAR)

~~Although this facility is not subject to 40 C.F.R. 60 Subpart VV, many sections of Subpart VV are incorporated by reference in 40 CFR 60 Subpart KKK. The pertinent sections of 40 C.F.R. 60 Subpart VV applicable to this facility include, the following requirements (with the exceptions provided in 3.1.9). The provisions of Subpart VV apply to affected facilities in the synthetic organic chemicals manufacturing industry.~~

8.1. Standards and Monitoring Requirements

8.1.1.~~3.1.9~~. Except as provided in 40 C.F.R. §§ 60.632(b) and (c), the permittee is responsible for thoroughly inspecting the facility, or part of the facility, for the presence of equipment leaks of volatile organic compounds and for complying with 40 C.F.R. §§ 60.632, 60.635 and 60.636. The pertinent sections of 40 CFR 60 **Subpart KKK** applicable to this facility include the following:

§ 60.632 Standards.

(a) Each owner or operator subject to the provisions of this subpart shall comply with the requirements of §§60.482-1 (a), (b), and (d) and 60.482-2 through 60.482-10, except as provided in §60.633, as soon as practicable, but no later than 180 days after initial startup.
[45CSR16, 40 C.F.R. § 60.632(a), Subpart KKK~~; and 45CSR13, R13-2468, 4.1.14~~]

(b) An owner or operator may elect to comply with the requirements of §§60.483-1 and 60.483-2. **[45CSR16, 40 C.F.R. § 60.632(b), Subpart KKK; and 45CSR13, R13-2468, 5.1.5 ~~4.1.14~~]**

(c) An owner or operator may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart. In doing so, the owner or operator shall comply with requirements of §60.634 of this subpart.
[45CSR16, 40 C.F.R. § 60.632(c), Subpart KKK]

§ 60.633 Exceptions.

(a) Each owner or operator subject to the provisions of this subpart KKK may comply with the following exceptions to the provisions of subpart VV.

(b) (1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485(b) except as provided in §60.632(c), paragraph(b)(4) of §60.633, and §60.482-4 (a) through (c) of subpart VV.

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3)(i) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9.

(ii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(4)(i) Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482–4(b)(1) of subpart VV.
(ii) No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring.

(c) Sampling connection systems are exempt from the requirements of §60.482–5.

(d) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of §§60.482–2(a)(1) and 60.482–7(a), and paragraph (b)(1) of this section.

(e) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of §§60.482–2(a)(1), 60.482–7(a), and paragraph (b)(1) of this section.

(f) Reciprocating compressors in wet gas service are exempt from the compressor control requirements of §60.482–3.

(g) Flares used to comply with this subpart shall comply with the requirements of §60.18.

(h) An owner or operator may use the following provisions instead of §60.485(e):

(1) Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150 °C (302 °F) as determined by ASTM Method D86–78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).

(2) Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150 °C (302 °F) as determined by ASTM Method D86–78, 82, 90, 95, or 96 (incorporated by reference as specified in §60.17).

[45CSR16, 40 C.F.R. § §60.633, Subpart KKK; and45CSR13, R13-2468, 5.1.5 ~~4.1.14~~]

8.1.2.~~3.1.10~~. Each owner or operator subject to the provisions of 40 CFR 60 **Subpart KKK** ~~this subpart~~ shall comply with the requirements of paragraphs (b) and (c) of 40 C.F.R. § 60.635 in addition to the requirements of §60.486.
[45CSR16, 40 C.F.R. §60.635(a), Subpart KKK~~; and 45CSR13, R13-2468, 4.1.14~~]

8.1.3. Although this facility is not subject to 40 C.F.R. 60 Subpart VV, many sections of Subpart VV are incorporated by reference in 40 CFR 60 Subpart KKK. The pertinent sections of 40 C.F.R. 60 Subpart VV applicable to this facility include, but not limited to, the following requirements (with

the exceptions provided in 8.1.1.~~3.1.9~~). ~~The provisions of Subpart VV apply to affected facilities in the synthetic organic chemicals manufacturing industry.~~
[45CSR16 and 45CSR13, R13-2468, 5.1.6]

~~Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482-1 to 60.482-10 for all equipment within 180 days of initial startup.~~
~~[45CSR16, 40 C.F.R. § 60.482-1(a); and 45CSR13, R13-2468, 4.1.15]~~

8.1.3.1. **PUMPS in light liquid service.**

a. Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in § 60.485(b), except as provided in § 60.482-1(c) and paragraphs (d), (e), and (f) of § 60.482-2.
[45CSR16, 40 C.F.R. § 60.482-2(a)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

b. Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
[45CSR16, 40 C.F.R. §60.482-2(a)(2); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

i. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
[45CSR16, 40 C.F.R. § 60.482-2(b)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

ii. If there are indications of liquids dripping from the pump seal, a leak is detected.
[45CSR16, 40 C.F.R. § 60.482-2(b)(2); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

c. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9.
[45CSR16, 40 C.F.R.§ 60.482-2(c)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

8.1.3.2. **PRESSURE RELIEF DEVICES in gas/vapor service.**

~~8.2.1. Limitations and Standards~~

a. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c).
[45CSR16, 40 C.F.R. § 60.482-4(a); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

b. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in § 60.482-9.
[45CSR16, 40 C.F.R. § 60.482-4(b)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

c. Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in § 60.485(b) except as provided in § 60.632(c), §60.633(b)(4) and § 60.482-4 (a) through (c) of subpart VV. **[45CSR16, 40 C.F.R. § 60.633(b)(1), Subpart KKK; and 45CSR13, R13-2468, 5.1.5 ~~4.1.15~~]**

i. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
[45CSR16, 40 C.F.R. § 60.633(b)(2), Subpart KKK; and 45CSR13, R13-2468, 5.1.5 ~~4.1.15~~]

ii. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in § 60.482-9.

[45CSR16, 40 C.F.R. § 60.633(b)(3)(i), Subpart KKK; and 45CSR13, R13-2468 5.1.5 ~~4.1.15~~]

d. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in §60.485(c).

[45CSR16, 40 C.F.R. § 60.482-4(b)(2); and 45CSR13, 13-2468, 5.1.6 ~~4.1.15~~]

~~8.2.2. **Recordkeeping**~~

~~The permittee shall comply with the recordkeeping and reporting requirements of §§ 60.486 and 60.487; except as provided in the exceptions of 60.633, the recordkeeping requirements of § 60.635 and the reporting requirements of § 60.636.~~

~~The permittee shall comply with the recordkeeping requirements of § 60.635 in addition to the requirements of § 60.486. The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of § 60.633(b)(1).~~
~~**[45CSR16, 40 C.F.R § 60.635(b)]**~~

~~a. When each leak is detected as specified in § 60.633(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.~~
~~**[45CSR16, 40 C.F.R. § 60.635(b)(1) and 45CSR13, R13-2468, 5.4.7(a)(i)]**~~

~~b. When each leak is detected as specified in § 60.633(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:~~

~~1. The instrument and operator identification numbers and the equipment identification number,~~

~~1. The date the leak was detected and the dates of each attempt to repair the leak,~~

~~2. Repair methods applied in each attempt to repair the leak,~~

~~3. "Above 10,000 ppm" if the maximum instrument reading measured is 10,000 ppm or greater,~~

~~4. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak,~~

~~5. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown,~~

~~6. The expected date of successful repair of the leak if a leak is not repaired within 15 days,~~

~~7. Dates of process unit shutdowns that occur while the equipment is unrepaired,~~

~~8. The date of successful repair of the leak, and~~
~~9. A list of identification numbers for equipment that are designated for no detectable~~

~~emissions which shall be signed by the owner/operator.~~

~~[45CSR16, 40 C.F.R. § 60.635(b)(2) and 45CSR13, R13-2468, 5.4.7(a)(ii)]~~

~~c. The permittee shall comply with the following requirement in addition to the requirement of §60.486(j): Information and data used to demonstrate that a reciprocating compressor is in wet gas service to apply for the exemption in § 60.633(f) shall be recorded in a log that is kept in a readily accessible location.~~
~~[45CSR16, 40 C.F.R. § 60.635(c)]~~

8.1.3.3. **SAMPLING CONNECTION SYSTEMS.**

a. Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in § 60.482-1(c).
[45CSR16, 40 C.F.R. § 60.482-5(a)~~; and 45CSR13, R13-2468, 4.1.15~~]

b. Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of § 60.482-5 shall comply with the requirements specified in paragraphs (b)(1) through (b)(3) of § 60.482-5:
[45CSR16, 40 C.F.R. § 60.482-5(b)~~; and 45CSR13, R13-2468, 4.1.15~~]

i. Return the purged process fluid directly to the process line; or
[45CSR16, 40 C.F.R. § 60.482-5(b)(1)~~; and 45CSR13, R13-2468, 4.1.15~~]

ii. Collect and recycle the purged process fluid to a process; or
[45CSR16, 40 C.F.R. § 60.482-5(b)(2)~~; and 45CSR13, R13-2468, 4.1.15~~]

iii. Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482-10.
[45CSR16, 40 C.F.R. § 60.482-5(b)(3)~~; and 45CSR13, R13-2468, 4.1.15~~]

8.1.3.4. **OPEN-ENDED VALVES OR LINES.**

a. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1(c).
[45CSR16, 40 C.F.R. § 60.482-6(a)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

b. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.
[45CSR16, 40 C.F.R. § 60.482-6(a)(2); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

c. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
[45CSR16, 40 C.F.R. § 60.482-6(b); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

d. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.
[45CSR16, 40 C.F.R. § 60.482-6 (c); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

8.1.3.5. **VALVES in gas/vapor service and in light liquid service.**

a. Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), §60.483-1,2, and § 60.482-1(c).
[45CSR16, 40 C.F.R. § 60.482-7(a); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

i. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
[45CSR16, 40 C.F.R. § 60.482-7(b); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

b. Any valve for which a leak not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.
[45CSR16, 40 C.F.R. § 60.482-7(c)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

c. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months
[45CSR16, 40 C.F.R. § 60.482-7(c)(2); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

d. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calender days after the leak is detected, except as provided in §60.482-9.
[45CSR16, 40 C.F.R. § 60.482-7(d)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

8.1.3.6. **PUMPS AND VALVES in heavy liquid service, PRESSURE RELIEF DEVICES in light liquid or heavy liquid service, and CONNECTORS.**

a. Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within 5 days by the method specified in § 60.485(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method. **[45CSR16, 40 C.F.R. § 60.482-8(a); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]**

i. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
[45CSR16, 40 C.F.R. § 60.482-8(b); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

b. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calender days after it is detected, except as provided in § 60.482-9.
[45CSR16, 40 C.F.R. § 60.482-8(c)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

c. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. **[45CSR16, 40 C.F.R. § 60.482-8(c)(2); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]**

8.1.3.7. **DELAY OF REPAIR.**

a. Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.
[45CSR16, 40 C.F.R. § 60.482-9(a); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

b. Delay of repair of equipment will be allowed for equipment which is isolated from the process

and which does not remain in VOC service.
[45CSR16, 40 C.F.R. § 60.482-9(b); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

c. Delay of repair for valves will be allowed if:
[45CSR16, 40 C.F.R. §60.482-9(c); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

i. The owner or operator demonstrates that emissions of purged materail resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
[45CSR16, 40 C.F.R. § 60.482-9(c)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

ii. When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §60.482-10.
[45CSR16, 40 C.F.R. § 60.482-9(c)(2); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

d. Delay of pumps will be allowed if:
[45CSR16, 40 C.F.R. § 60.482-9(d); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

i. Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and
[45CSR16, 40 C.F.R. § 60.482-9(d)(1); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

ii. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
[45CSR16, 40 C.F.R. § 60.482-9(d)(2); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

e. Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
[45CSR16, 40 C.F.R. § 60.482-9(e); and 45CSR13, R13-2468, 5.1.6 ~~4.1.15~~]

8.1.3.8. CLOSED VENT SYSTEMS AND CONTROL DEVICES.

a. Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of §60.482-10.
[45CSR16, 40 C.F.R. § 60.482-10(a)~~; and 45CSR13, R13-2468, 4.1.15~~]

b. Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.
[45CSR16, 40 C.F.R. § 60.482-10(e)~~ and 45CSR13, R13-2468, 4.1.15~~]

8.1.3.9. ALTERNATIVE STANDARDS FOR VALVES -- skip period leak detection and repair.

a. An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.
[45CSR16, 40 C.F.R. § 60.483-1(a)~~; and 45CSR13, R13-2468, 4.1.15~~]

b. The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:
[45CSR16, 40 C.F.R. § 60.483-1(b)~~; and 45CSR13, R13-2468, 4.1.15~~]

i. An owner or operator must notify the Director that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in § 60.487(b).
[45CSR16, 40 C.F.R. § 60.483-1(b)(1)~~; and 45CSR13, R13-2468, 4.1.15~~]

ii. A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times as requested by the Director.
[45CSR16, 40 C.F.R. § 60.483-1(b)(2)~~; and 45CSR13, R13-2468, 4.1.15~~]

iii. If a valve leak is detected, it shall be repaired in accordance with § 60.482-7(d) and (e).
[45CSR16, 40 C.F.R. § 60.483-1(b)(3)~~; and 45CSR13, R13-2468, 4.1.15~~]

c. An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of § 60.483-2.
[45CSR16, 40 C.F.R. §60.483-2(a)(1); and 45CSR13, R13-2468, 5.1.5 ~~4.1.15~~]

d. An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in §60.487(b).
[45CSR16, 40 C.F.R. §60.483-2(a)(2); and 45CSR13, R13-2468, 5.1.5 ~~4.1.15~~]

e. An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482-7.
[45CSR16, 40 C.F.R. §60.483-2(b)(1); and 45CSR13, R13-2468, 5.1.5 ~~4.1.15~~]

f. After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0 an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
[45CSR16, 40 C.F.R. § 60.483-2(b)(2); and 45CSR13, R13-2468, 5.1.5 ~~4.1.15~~]

g. After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
[45CSR16, 40 C.F.R. §60.483-2(b)(3); and 45CSR13, R13-2468, 5.1.5 ~~4.1.15~~]

h. If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §60.482-7a but can again elect to use this section.
[45CSR16, 40 C.F.R. §60.483-2(b)(4); and 45CSR13, R13-2468, 5.1.5]

i. The percent of valves leaking shall be determined as described in §60.485a(h).
[45CSR16, 40 C.F.R. §60.483-2(b)(5); and 45CSR13, R13-2468, 5.1.5]

j. An owner or operator must keep a record of the percent of valves found leaking during each leak detection period. **[45CSR16, 40 C.F.R.§60.483-2(b)(6); and 45CSR13, R13-2468, 5.1.5]**

k. A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in this section must be monitored

in accordance with §60.482-7a(a)(2)(i) or (ii) before the provisions of this section can be applied to that valve. **[45CSR16, 40 C.F.R. § 60.483-2(b)(7); and 45CSR13, R13-2468, 5.1.5]**

8.2.~~2.~~ Recordkeeping Requirements

The permittee shall comply with the recordkeeping and reporting requirements of §§ 60.486 and 60.487; except as provided in the exceptions of 60.633, the recordkeeping requirements of § 60.635 and the reporting requirements of § 60.636.

The permittee shall comply with the recordkeeping requirements of § 60.635 in addition to the requirements of § 60.486. The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of § 60.633(b)(1).
[45CSR16, 40 C.F.R § 60.635(b)]

8.2.1. The permittee shall comply with the following required with respect to the LDAR requirements of Sections 8.1.1 and 8.1.3:

a. The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.633(b)(1) of 40 CFR 60 Subpart KKK.

1~~a~~. When each leak is detected as specified in § 60.633(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
[45CSR16, 40 C.F.R. § 60.635(b)(1) and 45CSR13, R13-2468, 5.4.7(a)(i)]

2~~b~~. When each leak is detected as specified in § 60.633(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

i. The instrument and operator identification numbers and the equipment identification number,

ii. The date the leak was detected and the dates of each attempt to repair the leak,

iii. Repair methods applied in each attempt to repair the leak,

iv. "Above 10,000 ppm'" if the maximum instrument reading measured is 10,000 ppm or greater,

v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak,

vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown,

vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days,

viii. Dates of process unit shutdowns that occur while the equipment is unrepaired,

ix. The date of successful repair of the leak, and

x. A list of identification numbers for equipment that are designated for no detectable emissions which shall be signed by the owner/operator.

[45CSR16, 40 C.F.R. § 60.635(b)(2) and 45CSR13, R13-2468, 5.4.7(a)(ii)]

3e. The permittee shall comply with the following requirement in addition to the requirement of §60.486(j): Information and data used to demonstrate that a reciprocating compressor is in wet gas service to apply for the exemption in § 60.633(f) shall be recorded in a log that is kept in a readily accessible location.
[45CSR16, 40 C.F.R. § 60.635(c)]

b. When each leak is detected as specified in §§60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply:

1. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

2. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482-7(c) and no leak has been detected during those 2 months.

3. The identification on equipment except on a valve, may be removed after it has been repaired.

[45CSR16, 40 C.F.R. § 60.486(b) and 45CSR13, R13-2468, 5.4.7(b)]

c. When each leak is detected as specified in §§60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

1. The instrument and operator identification numbers and the equipment identification number.

2. The date the leak was detected and the dates of each attempt to repair the leak.

3. Repair methods applied in each attempt to repair the leak.

4. "Above 10,000" if the maximum instrument reading measured by the methods specified in §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

5. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

6. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

7. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

8. Dates of process unit shutdowns that occur while the equipment is unrepaired.

9. The date of successful repair of the leak.

[45CSR16, 40 C.F.R. § 60.486(c) and 45CSR13, R13-2468, 5.4.7(c)]

d. The following information pertaining to all equipment subject to the requirements in §§60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

1. A list of identification numbers for equipment subject to the requirements of this subpart.

2. (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482-2(e), 60.482-3(i) and 60.482-7(f).

(ii) The designation of equipment as subject to the requirements of §60.482-2(e), §60.482-3(i), or §60.482-7(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.

3. A list of equipment identification numbers for pressure relief devices required to comply with §60.482-4.

4. (i) The dates of each compliance test as required in §§60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

5. A list of identification numbers for equipment in vacuum service.

6. A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

[45CSR16, 40 C.F.R. § 60.486(e) and 45CSR13, R13-2468, 5.4.7(d)]

e. The following information pertaining to all valves subject to the requirements of §60.482-7(g) and (h) and to all pumps subject to the requirements of §60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:

1. A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

2. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

[45CSR16, 40 C.F.R. § 60.486(f) and 45CSR13, R13-2468, 5.4.7(e)]

f. The following information shall be recorded for valves complying with §60.483-2:

1. A schedule of monitoring.

2. The percent of valves found leaking during each monitoring period.

[45CSR16, 40 C.F.R. § 60.486(g) and 45CSR13, R13-2468, 5.4.7(f)]

g. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in §60.480(d):

1. An analysis demonstrating the design capacity of the affected facility;
2. A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and
3. An analysis demonstrating that equipment is not in VOC service.

[45CSR16, 40 C.F.R. § 60.486(i) and 45CSR13, R13-2468, 5.4.7(g)]

h. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

[45CSR16, 40 C.F.R. § 60.486(j) and 45CSR13, R13-2468, 5.4.7(h)]

8.3. Reporting Requirements

8.3.1. The permittee shall submit semiannual reports to the Director with regards to compliance with LDAR requirements of Conditions in Section 8.1 . The reporting period for these reports shall be January 1st through June 30th and July 1st through December 31st. Such reports shall be post marked no later than July 30th and January 30th respectively. These reports shall contain the following information for each month of the semiannual reporting period, summarized from the information in 40 CFR §60.486 and 40 CFR §60.636(c)(1) – (c)(2):

a. Number of valves for which leaks were detected as described in §60.482-7(b) or §60.483-2,

b. Number of valves for which leaks were not repaired as required in §60.482-7(d)(1),

c. Number of pumps for which leaks were detected as described in §§60.482-2(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

d. Number of pumps for which leaks were not repaired as required in §§60.482-2(c)(1) and (d)(6),

e. Number of compressors for which leaks were detected as described in §60.482-3(f),

f. Number of compressors for which leaks were not repaired as required in §60.482-3(g)(1),

g. Number of pressure relief values for which leaks were detected as required in §60.633(b)(2), and

h. Number of pressure relief devices for which leaks were not repaired as required in §60.633(b)(3).

[40 C.F.R. §60.636(c), 40 C.F.R. §60.487(c), and 40 C.F.R. §60.19(d); 45CSR16 and 45CSR13, R13-2468, 5.5.1]

9.0. Source-Specific Requirements • Galmish Diesel Fired Firewater Pumps [EN01, EN02 and EN03] and Fire Water Heaters [FW-2 and FW-4]

9.1. Limitations and Standards

9.1.1. Emissions from the 300 hp diesel fired fire pumps shall not exceed the following:

ID No.	Description	NOx		CO		VOC		PM		SO_2	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
001-01	Fire Pump	3.44	15.06	0.67	2.93	0.21	0.90	0.15	0.67	0.57	2.49
001-02	Fire Pump	3.44	15.06	0.67	2.93	0.21	0.90	0.15	0.67	0.57	2.49

[45CSR13, R13-2468, 4.1.1 5]

9.1.2. The amount of diesel fuel combusted in each of the ~~300 hp diesel~~ firewater pumps 001-01 and 001-02 shall not exceed 14 gallons per hour and 122,640 gallons per year.
[45CSR13, R13-2468, 4.1.5(a) 6]

9.1.3. Emissions from the 211 hp diesel fired fire pump identified ~~in Permit Application R13-2468C~~ as 001-03 shall not exceed the following:

ID No.	Description	NOx		CO		VOC		PM		SO_2	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
001-03	Fire Pump	1.21	5.30	0.28	1.22	0.05	0.20	0.04	0.16	0.44	1.91

[45CSR13, R13-2468, 4.1.2 ~~7~~]

9.1.4. The amount of diesel fuel combusted in ~~the 211 hp diesel fired~~ firewater pump ~~(ID No.~~ 001-03~~)~~ shall not exceed 10.7 gallons per hour and 93,732 gallons per year.
[45CSR13, R13-2468, 4.1.5(b) 8]

~~9.1.5. The facility shall combust only #2 diesel fuel in the diesel fired fire pumps (ID No. 001-01, 001-02 and 001-03)~~
~~**[45CSR13, R13-2468, 4.1.9]**~~

9.1.5.~~6~~. Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to the Subpart IIII of Part 60 and shown below for all pollutants.

Table 4 to Subpart IIII of Part 60 - Emission Standards for Stationary Fire Pump Engines

Maximum engine power	Model year	NMHC + NOx	CO	PM
		g/bhp-hr	g/bhp-hr	g/bhp-hr
300 ≤HP<600 (001-01 and 001-02)	2008 and earlier	7.8	2.6	0.40
175 ≤HP<300 (001-03)	2009+	3.0	-	0.15

Compliance with NOx, CO and PM emission limits in Requirements 9.1.1. and 9.1.3 will demonstrate compliance with these Standards.
[45CSR16, 40 C.F.R. §60.4205(c)]

9.1.6 ~~7~~. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.
[45CSR16, 40 C.F.R. §60.4206 ~~and 45CSR13, R13-2468, 4.1.16~~]

~~9.1.8. Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).~~
~~**[45CSR16, 40 C.F.R. §60.4207(a) and 45CSR13, R13-2468, 4.1.17]**~~

9.1.7 ~~9~~. Diesel fuel used by the engines for firewater pumps shall have maximum sulfur content no greater than 15 ppm (ultra-low sulfur diesel - USLD) and with either a minimum centane index of 40 or a maximum aromatic content of 35 volume percent. Diesel meeting the specifications of Nonroad diesel under 40 C.F.R. §80.510(b) is equivalent.
~~Beginning October 1, 2010, owners and operators of stationary CI ICE subject to the subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.~~
[45CSR16, 40 C.F.R. §60.4207(b) and 45CSR13, R13-2468, 4.1.4 ~~18~~]

9.1.8 ~~10~~. The following conditions and requirements are specific to firewater pumps set identified as 001-01, 001-02, and 001-03:

a. The engine shall be used as an emergency stationary engine and be limited to non-emergency operation of no more than 100 hours per year per pump set. Non-emergency operation shall be for maintenance checks and readiness testing.
[40 C.F.R. §60.4211(f)]

b. Each firewater pump set shall be equipped with an engine or engine configuration that has been certified by the manufacturer to comply with either 40 C.F.R. §60.4202(d), or 40 C.F.R. §60.4205(c), which can refer to requirements of 40 C.F.R. Part 89, 40 C.F.R. Part 94, or 40 C.F.R. Part 60.
[40 C.F.R. §§60.4211(a)(3) and (c)]

c. The permittee shall maintain each engine of each firewater pump set according to the manufacturer's emission-related written instructions.
[40 C.F.R. §60.4211(a)(1)]

d. The permittee shall only change those emission-related settings of the engine that are permitted by the manufacturer.
[40 C.F.R. §60.4211(a)(2)]

e. Owners or operators of an emergency stationary CI internal combustion engine, the facility must install a non-resettable hour meter prior to startup of the engine.
[40 C.F.R. §60.4209(a)]

[~~40 C.F.R. §60.1209(a)~~, 45CSR16 and 45CSR13, R13-2468, 4.1.3 ~~19~~]

~~9.1.11. Owners or operators of a pre-2007 model year stationary CI internal combustion engine that must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or the owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c) (Requirement 9.1.6) must demonstrate compliance~~

~~according to one of the methods specified in paragraphs (b)(1) through (5) of 40 C.F.R. § 60.4211(b):~~

~~(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.~~

~~(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.~~

~~(3) Keeping records of engine manufacturer data indicating compliance with the standards.~~

~~(4) Keeping records of control device vendor data indicating compliance with the standards.~~

~~(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable~~.

~~**[45CSR16, 40 C.F.R. §60.4211(b)]** *(001-01 and 001-02 only)*~~

9.1.~~9~~12. Owners or operators of a 2007 model year and later stationary CI internal combustion engine that must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies, the fire pump engine power rating in table 3 to this subpart and that must comply with the emission standards specified in §60.4205(c) (Requirement 9.1.~~5~~6), must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

[45CSR16, 40 C.F.R. §60.4211(c) ~~and 45CSR13, R13-2468, 4.1.21~~] *~~(001-03 only)~~*

~~9.1.13. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in 40 C.F.R. § 60.4211(e), is prohibited.~~
~~**[45CSR16, 40 C.F.R. §60.4211(e)]**~~

9.1.10 ~~14~~. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, the facility is subject to the following provision given below:

§ 63.6590 What parts of my plant does this subpart cover?

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets the criteria in paragraph (c)(1) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part.

(1) a new or reconstructed stationary RICE located at an area source;

[40 C.F.R. 63 Subpart ZZZZ §63.6590(c)] [EN01, EN02, EN03]

9.1.11. The fire water heaters identified as T-FW-2 and T-FW-4 shall be limited to being fired with propane. Compliance with this fuel restriction shall satisfy compliance with the visible emission limit of 45 CSR §2-3.1. **[45CSR13, R13-2468, 4.1.6]**

9.2. Monitoring Requirements

9.2.1. For the purpose of demonstrating compliance with the hours of operation limit in Condition 9.1.8: the permittee shall record the number of hours each firewater pump set operated for non-emergency situations during the month and the reason for such operation. Such records shall be maintained in accordance with Condition 3.4.2.
[40 CFR §60.4211(f) . 45CSR16 and 45CSR13, R13-2468, 4.2.1]

9.3. Testing Requirements

9.3.1. None

9.4. Recordkeeping Requirements

~~9.4.1. The facility shall monitor the hours of operation and the fuel usage on a monthly basis. Hours of operation are to be tracked via a non-resettable hour meter.~~
~~**[45CSR13, R13-2468, 4.2.1]**~~

9.4.1.2. For the purpose of determining compliance with the maximum fuel limits, emission limits, and type of fuel used set forth in Sections 9.1.2~~1~~ and 9.1.4 ~~5~~, the applicant shall maintain a monthly record of the quantity of #2 diesel fuel burned and the number of hours of operation for each fire pump. In addition, the facility shall maintain a ~~fuel supplier certification~~ record of ~~for the~~ #2 diesel fuel ~~to be combusted~~ delivered to the facility that meets the specification as stated in Condition 9.1.7. Records shall be maintained in accordance with Condition 3.4.2.~~on site for a period no less than five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative upon request.~~

[45CSR13, R13-2468, 4.4.2~~3~~]

~~9.4.3 For the purpose of demonstrating compliance with 40 C.F.R. 60.4211(b), listed in Section 9.1.11, and with 40 C.F.R. 60.4211(c) (Section 9.1.12), the applicant must maintain record of engine manufacturer data indicating compliance with 40 C.F.R. 60 Subpart IIII emissions standards 60.4205(c) (Requirement 9.1. 6). Records shall be maintained on site for a period no less than five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative upon request.~~

~~**[45CSR13, R13-2468, 4.4.4 and 45CSR§30-5.1(c)]**~~

9.5. Reporting Requirements

9.5.1. None.

9.6. Compliance Plan

9.6.1. None.